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AUTHOR Renfrew, Melanie; Porter, Priscilla

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ABSTRACT

The concept of location is a first step in spatial thinking, one of the multiple intelligences and an historical and social science analysis skill listed in the California Academic Content Standards for History-Social Science. Based on what they learned in kindergarten and first grade about mapping their classroom and the playground, students learn more about map basics using maps of the school neighborhood, maps that show how land use differs spatially in California (what a California land use map looks like), and maps of the key features of the North American continent. Suggested time for unit implementation is 6 weeks. The unit incorporates the five themes of geography: location, place, human-environment interaction, movement, and regions. The lesson plan discusses the significance of the topic; lists focus questions; features literacy links; covers materials needed for the lesson; and provides information and student activities, dividing the topic into "Beginning the Topic"; "Developing the Topic"; and "Culminating the Topic." It suggests assessment activities and offers extended/correlated activities. Lists references and resources for the sample topic. Appended are sample worksheets. (BT)

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ED 462 331

CALIFORNIA History-Social Science
Course Models

Expanding Map Skills from the Neighborhood to the World

Grade 2 Model Lesson for Standard 2

Developed by Dr. Melanie Renfrew and Dr. Priscilla Porter

SO 033 553

2001

http://www.history.ctaponline.org/center/

California Department of Education
721 Capitol Mall, 6th Floor
Sacramento, CA 95814
(916) 654-6299

California Department of Education

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Standard 2: Expanding Map Skills from the Neighborhood to the World

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Students demonstrate map skills by describing the absolute and relative locations of people, places and environments by:

- **Locating on a simple letter-number grid system the specific locations and geographic features in their neighborhood or community (e.g., map the classroom, the school)**
- **Labeling a simple map from memory of the North American continent, including the countries, oceans, Great Lakes, major rivers, mountain ranges; identifying the essential map elements of title, legend, directional indicator, scale, and date**
- **Locating on a map where their ancestors live(d), describing when their family moved to the local community, and describing how and why they made the trip**
- **Comparing and contrasting basic land use in urban, suburban and rural environments in California**

Suggested Time for Standard 2 : 6 weeks

Sample Topics for Standard 2:
Using a simple letter-number grid to locate specific places; identifying the essential elements of a map; comparing and contrasting land use in California; labeling a simple map of North America from memory; and, locating where ancestors live(d).

Developed by Dr. Melanie Renfrew in conjunction with Dr. Priscilla Porter under the auspices of the Center for History-Social Science Education at California State University, Dominguez Hills

Significance of the Topic

The concept of location is a first step in **spatial** thinking, one of the multiple intelligences and an historical and social science analysis skill listed in the California Academic Content Standards for History-Social Science. Second grade students are ready to expand upon what they learned in kindergarten and first grade about mapping their classroom and the playground. In this unit they will learn more about map basics using maps of the school neighborhood, maps that show how land use differs spatially in California (i.e., what a California land use map looks like), and maps of the key features of the North American continent.

The basic skill we are aiming to develop among students is **spatial** or map thinking: the ability to transfer their knowledge of space on the earth, to imagine and draw a map of what it looks like from above – the "bird's eye view." To think of the earth in terms of maps and to have a well-developed mental map – this is our goal. (Note: Some children's map books include diagrams or pictures from a horizontal view, which although cute, are not maps in the geographic sense.)

Second grade students are not too young to develop the skills of spatial thinking. Students begin by locating specific sites in their classroom, school and neighborhood using a simple number-letter grid. They become familiar with identifying map elements of title, legend, directional indicator, and date on local, state, continental, and world maps. They focus on comparing and contrasting basic land use in urban, suburban and rural environments of California. On the North American continent, students will be expected to label from memory physical features such as countries, oceans, gulfs, Great Lakes, and major rivers and mountain ranges. To conclude the unit of study, students will use world maps to locate where their ancestors lived, examine the migrations of past generations of their own families, and describe how and why they migrated to California

By focusing on these patterns of migration, students will become aware of our North American neighbors, Canada, Mexico, and Central America, which have been the source of considerable recent immigration to our state and nation. Especially in California and the American Southwest, Mexico and Central America have played an immense part in shaping our population, economy, and cultural geography: people, place names, architectural styles, food. Just as our classrooms are connected to Latin America, they are linked to other world regions including Asia, the Middle East, Africa, and Europe by immigration. Even if one's class does not reflect California's ethnic diversity, it is important for students to understand that our state is made up of people from many different parts of the world and for teachers to dignify our rich and unique multicultural heritage.

This unit illustrates all **"five themes of geography": location, place** (physical and human characteristics such as neighborhood landmarks, physical features of North America), **human-environment interaction** (land use), **movement** (from migrations to water flow in North American rivers), and **regions** (neighborhoods, environmental regions in California, world regions such as Central America and the Caribbean).

This unit touches on six of the 18 National Geography Standards (*Geography for Life* 1994). These national standards recognize that a "geographically informed" person knows and understands:

- How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information from a spatial perspective (National Standard 1);
- How to use mental maps to organize information about people, places and environments in a spatial context perspective (National Standard 2);
- The physical and human characteristics of places perspective (National Standard 5);
- The characteristics, distribution, and migration of human populations on Earth's surface perspective (National Standard 9); and
- How physical systems affect human systems perspective (National Standard 15).

If American children are to compete internationally in a globally connected world, they must learn more geography from a young age. Most children have a natural love for maps and will enjoy drawing and reading them.

Focus Questions:

1) How can a grid be used to locate places on a map?
2) How do we make a map so it is complete (i.e., what "map elements" are necessary)?
3) Where is our school located in relation to other places in our neighborhood (i.e., absolute and relative location)?
4) In California, how is land used in different ways (urban, suburban, and rural)?
5) What are basic geographic features and countries on the North American continent?
6) How did my family ancestors migrate to California, answering the newspaper interviewer's questions: who, what, when, where, why, and how?

Materials Needed for the Lesson:

- Maps of the classroom and school grounds
- Maps of the school neighborhood, showing the school with one or two nearby major streets (The Thomas Bros. Guide map, U.S.Geological Survey topographic map, or other city maps may be good sources for this. Check the front of the local telephone book as well.)
- Atlas with maps of California land use and of the continent of North America. (Recommended is the *Map Champ Atlas* from Nystrom.)
- California wall map (Ask to borrow one from a 4th grade classroom.)
- Photographs depicting urban, suburban, and rural environments
- Classroom set (2 per student) of outline maps of California and outline maps of North America that show the country boundaries. Outline maps are available in sets of 50 or bundles of 500 from map companies such as Nystrom and Rand McNally. Recommend 2 maps per student.
- Colored pencils and erasers (preferable to crayons, felt pens not recommended)
- World wall map, push pins and colored yarn or string

Literacy Links:

Reading

- Read a variety of maps (neighborhood, California, North American, and World) and atlases
- Identify the essential elements of a map, including the title, legend, directional indicator, scale, and date

Writing

- Using a grid, write sentences to describe the location of an object on a map
- Construct a simple map of the classroom, school and neighborhood, including grid lines
- Write two descriptions of the maps of North America and California, describing the symbols and geographic features in words
- Write a paragraph describing their ancestors' migration to California, answering the newspaper interviewer's questions: who, what, when, where, why, and how?

Speaking

- Share with the class the story of their ancestors' migration.

Listening

- Listen to other students' stories of their ancestors' migrations, make a list of the countries of origin, and group them by continent.

A
Beginning the Topic

Focus Question # 1: How can a grid be used to locate places on a map?

A Map of our Classroom

Draw a map of your classroom showing a simple floor plan. If possible, use a transparency and display the map on the overhead projector. As you display the map, add a title, a directional key, and the date.

Define "location" as "where" a place is and a "map" as "a picture from above to help us find places (locations)." A "bird's eye view" is a common expression used by teachers to describe the spatial or map view. Distinguish the spatial or view from above with the horizontal or view from the side: for example, the teacher's desk, a work table, and a bookcase will look different in a picture than on a "map" (or floor layout, diagram from above). (Note: When discussing larger maps, present ideas of what it would be like to look down on the earth from an airplane window or a space vehicle. If available, refer to The *Map Champ Atlas*, pages 4 and 5.)
Invite students to identify various locations on the classroom map.

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Make a transparency of the grid shown in Appendix 1. Overlay the grid on the classroom map. Explain to students that each square has a letter and a number. The grid is used to help us locate places on a map. Model how to use the overlay grid to locate places on the map by locating the number at the top or bottom of the column and the letter at the beginning or end of the row. Provide several examples such as "The teacher's desk is located at C-2." Ask the students, "How is a grid useful?" (It makes finding a place on a map fast and easy.)

Have students take turns giving directions as you mark locations on the grid. For example,"Go to location G-5 and place an "X" on the square." Continue until all squares on the grid have been identified. You can also play Treasure Hunt using the grid. Hide an object in the classroom and let each student name a location on the grid to see if he or she can locate the treasure.

Duplicate a copy of the classroom map for each student. Demonstrate and guide students to use a ruler to draw horizontal and vertical grid lines over their map at one inch intervals. Have each student label the grid lines with numbers and letters.

Have each student draw a classroom map, identifying the location of his or her desk. Students can copy the simple outline of the class floor plan used above. Have each student add grid lines to his/her map. Students can then work in pairs to identify locations on each other's map and/or play the Treasure Hunt game.

Note: In the first grade, students learned about constructing a simple map, using cardinal directions and map symbols (Standard 1.2). In second grade, the map elements necessary to make the map complete include the title, legend or key showing symbols, directional indicator (either a north arrow or compass rose), scale and date. The initial maps made in this unit should inform the teacher of the students' previous knowledge of maps.

<u>A Map of Our School</u>
Display a school map on the overhead projector. Using a grid overlay, have students identify locations such as the classroom, playground, eating area, restrooms, school office, and any other "landmarks."

B

Developing the Topic

This standard has five parts: 1) Elements of a Map, 2) The Neighborhood Map, 3) Land Use in California, 4) The North American Continent, and 5) Ancestors' Migration World Flow Map. Each section contains culminating and assessment activities.

Focus Question # 2: How do we make a map so that it is complete (i.e., what map elements are necessary)?

Map Elements

Explain to the students that designing and drawing maps is a **cartographer's job**; these are people who draw maps by hand or by computer and work with governments and businesses. Emphasize that all the printing on a map should be as neat and clear as possible to be readable.

Scavenger Hunt (Use multiple copies of the same map or a variety of different maps.) Tell students that all maps have certain elements or parts. Explain that they are going to go on a "scavenger hunt" to locate these different parts of a map. Pass out a variety of maps. As you introduce each of the following elements, have students work individually, in pairs, or small groups to locate the element on their map.

Title: The title should be simple. It is usually located at the top center, but it may be located to the side, directly above the legend. Have students locate the title of the map. Note the use of capital letters for the proper nouns. (Note: During this unit of study, a variety of maps will be constructed. The titles of these maps include 1)"Our School Neighborhood" (or use name of school), 2) "California Land Use", 3) "North American Countries", 4)"North American Physical Features", and 5) "Our Ancestors' Migrations to California.")

Legend: A legend is a key to the symbols used on the map. It is usually located in a neat box in an area of the map that does not have important features. Look at the legend and symbol shown on a variety of published maps. In atlases, the legend might be on a separate page. The **scale** is usually included at the bottom of the legend, although it may be drawn in a bottom corner of a map. (Refer to the *Map Champ Atlas* page 9.)

Directional Indicator: This can be as simple as a North Arrow pointing to the top of the map, or a simple North-South, West-East indicator drawn with crossed lines. (A way to remember the directions is that 'W' and 'E' spell 'WE' from left to right.) Follow the pattern of the reference map you are using. A "compass rose" shows the in-between directions of northwest, northeast, southeast, and southwest (which can be labeled with the abbreviations NW, NE, SE, SW).

Scale: A scale shows the relationship between distance on the map and distance on the earth. Most scales on maps for children are bar scales that have ruler-like measurements showing distance in miles. A verbal scale is written in words: "One inch equals (or 'stands for') 770 miles." A math extension is to practice measuring distances between

two locations with the scale, using rulers. The concept of relative location, where places are related to each other, can be echoed. Important: If the maps you are using have been enlarged or reduced on a photocopier, the bar scale and verbal scale are no longer accurate, and it is better to leave it off rather than show untrue distances.

Date: The date on a map is the time of its construction, and is usually written in a lower corner, sometimes next to the name of the cartographer. When maps are made in class over several days, have students neatly write the date when they finish next to their names (e.g., simply 1999, or 5/1/99).

Note for the Teacher: A map projection is how the spherical surface of the earth is shown on flat paper. A globe is the only way to accurately portray the entire earth, so on flat maps, some distortion always occurs either in area size, shape, distance, or direction. In the North American map projection in the *Map Champ Atlas* (pages 12-15), the north-south grid lines (meridians of longitude) converge at the poles as they do on a globe. This more accurately represents both the shape and the size of the land areas than if north is straight up all across the map. The common Mercator world map projection has the north-south lines of longitude going vertically, and it grossly exaggerates the size of Greenland, for example. Many classroom world maps have this projection, and thus this size distortion. You can explain this to students in a simple way if you have a globe and a world map. (Refer to the *Map Champ Atlas* pages 12-15 to help students understand how maps and globes are different.)

Focus Question # 3: Where is our school located in relation to other places in our neighborhood (i.e., absolute and relative location)?

The Neighborhood Map

Locate a map of your school neighborhood that shows your school with one or two nearby major streets. It is not necessary to include the whole territory of the students' homes. It helps to include some nearby landmarks that are play areas or are part of the "popular culture," e.g., a neighborhood park, fast food place, common grocery store, or mall. In other words, the students will be attracted if the map symbols represent places they like and know. (Note: The Thomas Bros. Guide map, U.S.Geological Survey topographic map, AAA, or other city maps are good sources. Check the front of the local telephone book as well.)

Photocopy (or purchase) a class set (one for each student) of the neighborhood map. Let students spend time "reading" the map and sharing what they find. Help them locate the title of the map, the directional indicator, the legend, the scale, and the date of the map.

Use a transparency of Appendix 1 or make a simple letter-number grid with a ruler, with capital letters written in a vertical column on the left, and numbers written across the top, at the same intervals (e.g., one inch apart). (Note: It is also correct to write letters across the top and numbers in the vertical column at the left.) If thin north-south, east-west grid lines are already printed on the map, use the existing lines.

Abbreviated example:

	1	2	3	4
A				
B				
C				
D				

Practice using the grid to find features on the map using their "absolute locations": the specific sites represented by letter-number indicators. For example, the school might be at D-4, the mall A-1 – A-2, and McDonald's at C-3. This is a model for later years learning to locate places on the globe with latitude and longitude coordinates ("the geographic grid").

Another simple example of an "absolute location" is a street address: give the address of the school and show its location on the map; have students write their home street addresses, and find a couple of students' homes who live close to the school. Emphasize that not all will live on the maps you are using. "Near the school" and "far from the school" are "relative location" terms: where a place is in relationship (or 'related,' 'compared') to other places. "Near, nearer, nearest," and "far, farther, farthest" are sets of relative location terms, but they do not mean "good, better, best."

Practice comparing where the features on the neighborhood map are located with the grid system and with each other. This can be tested in the same way it was taught; e.g. with the same maps, ask students on a quiz:

"What is the location of our school?" (e.g., "D-4" as in our example).
"Where is McDonald's?" ("C-3") (These two are absolute location questions.)
"Which is closer to the school, McDonald's or the mall?" (relative location).

Have pairs of students draw maps of their neighborhood. Suggest that they show streets, buildings and other landmarks. Students can then use a ruler to draw horizontal and vertical grid lines over their map.

Have each student write at least three sentences to identify specific locations on his/her map. For example, "The playground is located at G-3." Partners can trade their map with other pairs and give each other directions for locating places on the new map. Game pieces can be used if desired.

Focus Question # 4: In California, how is land used in different ways (urban, suburban, and rural)?

Materials:

- *Map Champ Atlas,* How Do People Use the Land? (pages 26-27, if available.)
- A California map (if possible, use a Population Map), showing the four largest population concentrations ("urban + suburban" areas) of Los Angeles, San Francisco, San Diego, and Sacramento, the medium settled areas of the Central (San Joaquin)

Valley, and the "rural" areas of the mountains, northern forests, and deserts. If a population map is not available, a regular highway map of California can be used to show the four largest cities (urban + suburban), Central Valley, Sierra Nevada, and the areas where the population is more scattered (rural) and fewer cities are labeled.

Land Use

Invite students to look outside the classroom and describe the land they see. Ask questions such as, What is land? What is the difference between land and property? How is land used in different ways? Is it expensive? Does it cost different prices in different areas? What are some of the things that are built on the land? How is it "settled"? What is planted? What areas are crowded? Where can more people live, in apartment buildings or houses with yards? Why do so many people live in the cities? Why don't more people live in the mountains? forests? deserts? Tie this in with **job** availability. This is often the major 'push factor' (i.e., not having a good job) and 'pull factor' in migration decisions. (This may play a factor in the migration of ancestors studied later in this unit.)

Show students a map of California and have them identify the title, directional indicator, legend, and scale of the map. (*Map Champ Atlas*, page 24 may be used, but a larger wall map is desirable.)

Ask students to identify areas where large cities or urban areas are located (Los Angeles, San Francisco, San Diego, and Sacramento.) Have them find areas where no towns, few towns, or small towns are located. Explain that cities are called **urban** areas while places with small towns, farms, ranches, countryside, and desert are called **rural** areas.

The goal of this section is to help students visualize and map how the land in California is used. It is helpful to show photos from the atlas, calendars, and magazines (especially *National Geographic*) to illustrate the terms "urban, suburban, and rural" environments. Refer to the *Map Champ Atlas* pages 7, 26-29, 31 for a few sample photographs.

Construct word cards to use as you introduce the following terms. (Refer to Appendix 2.)

The term "**environment**" refers both to natural features that include land, vegetation, animals, water, etc. It also refers to the cultural landscape of human settlement: roads, buildings, introduced vegetation such as crops, grass and decorative trees, signs, airports, etc. ("Environs" generally means "surroundings.")

- Define "**urban**" as referring to cities, where the land is mostly taken up with buildings, apartments, houses, and streets, and people live in concentrated ways (dense population clusters on a population map). Show a variety of pictures of urban environments. Explain that urban areas, or cities, are big places with many people and lots of things to do. "Downtown" areas in the centers of cities usually are the most crowded, with the tallest buildings.

- **Suburban** refers to smaller cities that are located right next to a big city, often in a circle or ring around it. The prefix "sub-" means "under" (or "around"). Ask students if they can think of another "sub-" word ("submarine"). A suburb is a community next to or around a city. It has quieter neighborhoods and less traffic than a city. Show a variety of pictures of suburban environments. (Refer to *Map Champ Atlas*

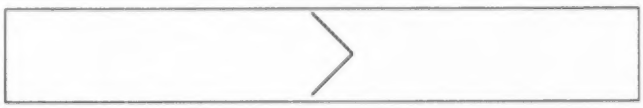
page 27.) Explain that the first suburbs were called "bedroom communities," and were designed to support (be 'under' or around) the central city. In suburbs, people have houses with bigger yards for less price, but they all worked in the city and drove in every day. (At this point you can ask the students about how their parents drive to work, does it take a long time? This is called "commuting," another form of geographic movement.) As cities and suburbs both grew, shopping centers and work places all moved out from the central city.

- **Rural** means "countryside," away from the city, where houses are scattered. People live in or near small towns. There may be farms where food crops are grown, ranches where livestock animals are herded, forests which are kept as a reserve for wild animals, or used for camping or logging, and deserts which are dry environments where it is difficult for plants and animals to live in large numbers. Show a variety of pictures of rural areas.

Draw a circle on the board with "Central City – Urban" written in the middle, and draw an outer circle around it labeled "Suburbs." You can point out that it looks donut-shaped. A short distance away, write "Rural" with no boundary around it. This is a simple "model" or example of land use. Have each student copy it on a piece of paper. Drawing models and maps oneself is necessary to develop spatial thinking.

Show additional pictures of each environment and have students sort them into urban, suburban, or rural areas. Compare and contrast each of the environments.

Using pictures or photographs, have students work in small groups to design a banner illustrating one type of land use (urban, suburban, or rural). Before beginning this activity, cut strips of bulletin board paper into 5-foot lengths. Turn each strip into two banners by cutting a v-shaped line across the middle of the paper. (See illustration below.) For variety, use several colors of bulletin-board paper.



Each group should write one type of land use (urban, suburban, or rural) in large letters across their banner. Students can then glue pictures on the banner to illustrate the type of land use. For variety, each student in the group can paste or draw a picture on a piece of white construction paper and write a sentence describing the type of land use under the picture. Each student's work can then be glued to the group's banner. Hang the banners vertically around the classroom.

California Land Use Maps

Review the map, "How Do People Use the Land" in the *Map Champ Atlas* pages 26-27. Point out the legend titled "Land Use." Locate California and discuss the different uses of land in California. (If possible, enlarge the California section of the map and make a color transparency of it.)

Grade 2, Standard 2

Using a large classroom map of California, an atlas map, or an overhead transparency of California, have students locate the four major urban areas (central cities) of Los Angeles, San Francisco, San Diego, and Sacramento.

Locate the rural areas as shown on the Land Use map in the *Map Champ Atlas* (pp. 26): Farming in the Central Valley and Forestry along the northern coast. Refer to the map on page 28 of the *Map Champ Atlas* for the location of National Forest areas. Have students identify the rest of the "rural" areas. These can be titled "Ranching and Other Land Use."

Compare and Contrast Land Use

To conclude this section on land use, ask questions to encourage students to compare and contrast the basic land use in urban, suburban and rural environments in California. Sample questions might include:

- How is the land used in each of the areas?
- What types of buildings are found in each of the areas?
- What types of plants are found in each of the areas?
- What types of human activity is found in each of the areas?
- Why do some people prefer to live in an urban area?
- Why do some people prefer to live in a suburban area?
- Why do some people prefer to live in a rural area?

Focus Question # 5: What are basic geographic features and countries on the North American continent?

The North American Continent

Learning basic place locations on the North American continent is a good step toward becoming internationally aware. For reference, use *The Nystrom Map Champ Atlas* or other maps of North America. It helps if students examine the atlas closely at their desks.

As a background to map construction, read pages 16 and 17 in the *Map Champ Atlas* to contrast countries and continents. Use the map legend to identify the key for "continents." Have students identify and list the continents, the seven largest land areas: North America, South America, Africa, Europe, Asia, Australia, and Antarctica. (This will be a review of continents they learned in the first grade.) Refer to the glossary on page 44 and read the definition of "continent" and "country." Ask, "Which continent is also a country?" (Australia)

Ask students, "The United States is located on which continent?" Refer to the satellite photo of the Western Hemisphere on page 22 and the map of North America on page 30.

(Teacher Note: Eurasia is one landmass, but it is counted as two separate continents because of historical and cultural reasons. The traditional boundary between Europe and Asia is the Ural Mountains down to the Caspian and Black Seas.)

Labeling a Map of North America

Give each student two blank outline maps of North America, one for physical features and one for labeling the countries. Over several days, have each student copy the features onto his or her own map. The best way to learn map locations is to draw, locate, and label the places oneself, because the processes of writing and looking several times at the shapes and positions (locations) makes the map more likely to go into one's visual memory.

Map #1: Physical Features of North America

One method for labeling the map is for the teacher to make a series of overlay transparencies, each with a separate group of physical features. One day show the mountains and have students locate and label them, the next day show water features, the next focus on Central America, etc. The legend may be constructed along with the labeling.

The following are lists of recommended physical features to locate:

Water features:

- **Large bodies of water: Pacific Ocean, Atlantic Ocean, Arctic Ocean, Hudson Bay, Gulf of Mexico, Caribbean Sea**
- **Rivers: Colorado River, St. Lawrence River, Mississippi River, Missouri River, Ohio River**. (Point out that these latter two flow into the Mississippi River, water always flows downhill because of gravity, and eventually, usually flows into the ocean.)
- **Great Lakes:** west to east: **Lake Superior, Lake Michigan, Lake Huron, Lake Erie, Lake Ontario**. (If using the acronym, "H.O.M.E.S" for memory, make sure students don't label them this way left to right.) The Great Lakes flow into each other and then into the St. Lawrence River. This is sometimes called the "St. Lawrence Seaway System," and connects the great mid-western cities such as Chicago and Detroit with the Atlantic Ocean (which is very important for the economy of this manufacturing area).

Physical features:

- **Mountains: Sierra Nevada** ("snowy mountains"), **Appalachian Mountains, Rocky Mountains** (include the Canadian Rockies), **Sierra Madre** in Mexico (If desired, label two branches – Occidental and Oriental; if some students are Spanish-speaking, they may enjoy pointing out this means "mother mountains," "western and eastern".) Show how this Rocky Mountain range extends all the way from Canada through Central America to Panama. (No separate label is needed, but if desired, they could simply be called, "Central American mountains.")

- Two largest islands: **Greenland** (Danish colony) and **Cuba** (separate country)
- Island chains: **Caribbean islands** (general, as a group). Sometimes these are called the "West Indies" because Christopher Columbus was trying to sail to India and thought he had arrived when he landed here.
- Three peninsulas (a land area surrounded on three sides by water): **Baja California** ("Lower" California), **Alaska, Florida** (Point out that the first is part of Mexico, and the second two are states of the United States.)
- The **Great Plains**: Plains are flat land areas. The Great Plains are wide, large grassy areas used for ranching; there is not enough rainfall for farming unless the land is watered (by irrigation). The American Great Plains are not crowded areas and are an example of "rural" land use as described earlier in this lesson.
- **Panama** land bridge or isthmus. Point out that when the Panama Canal was built, the time to travel by ship from the East Coast of the United States to the West Coast was greatly shortened because it was no longer necessary to go around South America.

Legend: For the North American Physical Features map, water features are traditionally shown in blue, with blue lines for rivers. Mountains can be shown with upturned V's or as regions of a medium brown color. (If the latter is chosen, care should be taken to carefully copy the mountainous areas: draw lines around them and fill in with brown.) Not every feature needs a separate symbol, but can be labeled directly on the map (e.g., Baja California). Since the Great Lakes are small, they can be labeled on the map by the first letter of each lake, and the letters can be listed as symbols in the legend; but they could also be neatly labeled right next to each lake.

Make a legend with symbols on the left, identify what they represent, and draw the box around afterward. For these second grade maps, a small number of symbols should be selected - simpler is better.

There is no one right way to make a map; as long as certain principles are followed, some creativity can be used. For example, the Great Plains could be colored in a light sandy brown or a grassy green color, or they could simply be labeled on the white background. Colored pencils will work the best; if crayons are used, have children color lightly. (Felt tip pen colors are too intense and will compete with the lettering).

Scale: Outline maps generally indicate the scale of the map. If the outline maps you are using have been enlarged or reduced on a photocopier, the bar scale and verbal scale are no longer accurate, and it is better to explain to students and leave it off rather than show untrue distances. (Note: The only scale that stays correct when enlarging or reducing is a "representative fraction scale": for example, "1:2,000,000" means one inch on the map represents 2,000,000 inches on the earth's surface. This is too complicated for second graders, and can be left out.)

Map # 2:Countries of North America

Distribute a second outline map of North America that shows country boundaries. Have students include the following:

United States of America (U.S.A., include Alaska), **Canada, Mexico**

Central America, including Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Cuba. Point out that many people from these countries, including Canada, (and may other countries) have moved to California.

Maps should include a title, legend, directional indicator, date and student name. Encourage students to print very neatly to label the small Central American countries, and they can use the space in the ocean nearby. Felt tip pens are not recommended because they can block out the lettering.

Note to the Teacher: One purpose of having two North American maps is that with a mountain symbol in the small Central American countries (usually a row of upturned V's), it is difficult to find space to label the country names. It is beneficial for students to see how the Rocky Mountain chain extends north - south (or northwest – southeast) all the way from Alaska and northern Canada, through the Mexican Sierra Madre ranges, to the volcanic backbone of Central America. The people who live in these Mexican and Central American mountains experience earthquakes similar to those we have in California. Note that this continental length is similar to the Andes mountain chain in South America (refer to the satellite photo on page 22 in the atlas).

"Central America" extends from Guatemala and Belize to Panama. As a world region, Mexico, Central America, and the Caribbean area together are called "Middle America," part of the larger "Latin America" world region that extends from Mexico to South America. Archeologists call the Aztec and Mayan civilizations "Mesoamerica."

Point out to students that Mexico City and many other cities in Central America are located in the mountains, which are higher up and cooler than the hot, coastal tropical rainforest in this region (that is, the tropics). Refer to the world map of general temperature regions (pp. 20-21) in the *Map Champ Atlas*, the two Tropic lines on the world map (pp. 16-17), and the Tropic of Cancer line on the North American map (p. 30).

If desired, Russia can be located and labeled on the far northwest of the map, and identified with the continent of Asia. Its closeness to Alaska is interesting, and it is thought that the earliest Americans crossed the Bering Strait from Asia when the ocean levels were lower and a land bridge was exposed. Also visible on many North American continent maps (e.g. *Map Champ Atlas* page 30) are Greenland, a territory of Denmark, and Iceland, both of which are countries in Europe, another of the seven major continents. Some children followed the story of Keiko the whale, the star of the "Free Willy" movies, who journeyed in 1998 from Oregon to Iceland.

Refer to Appendix 3 for a list of the recommended items to include on the Physical Features Map and the Countries Map.

Directional Indicator: Use this teaching of directions to review the concept of **relative location**: Canada is north of the U.S. (except Alaska), Mexico is south of the U.S., the Caribbean Sea and islands are east of "Middle America" (or "Mexico and Central America") and many examples could be used to teach these directions: Alaska is in the northwestern part of the North American continent, Florida is in the southeastern 'corner' of the U.S.A., etc.). Test questions could include relative location questions: "Which is

further north, Hudson Bay or the Great Lakes?" (Note: If the map used is a Mercator Projection, the North indicator will appear to be at an angle pointing to the top center of the map, if drawn in either ocean. See pages 24-25 and 30, *Map Champ Atlas*, and note how the directional indicator in the Atlantic Ocean differs from the one in the Pacific.)

C
Culminating the Topic

Focus Question # 6: How did my family ancestors migrate to California, answering the newspaper interviewer's questions: who, what, when, where, why, and how?

Ancestors' Migration World Flow Map

A flow map shows movement with arrows. The culmination or goals of this lesson are: 1) for the class to create a large world flow map on a bulletin board which shows the source regions for student heritage in a visual, spatial way, with yarn representing the arrows of migrations to California, and 2) for each student to write and present a summary paragraph about their ancestors' migrations. This echoes the theme of relative locations, and adds the dimension or theme of **geographic movement**.

Standard 1 for Grade 2 focuses on family history. This focus question is intended to review, summarize and display the geography of these family roots, specifically by mapping the students' ancestor migrations to California. Many Californians have ancestors who came from the eastern part of the United States, but try to have students find out what countries their earlier ancestors' migrated from.

In this section of the unit, students take on the role of journalist and interview their parents or a friend of the family. Newspaper reporters (journalists) try to answer the 5 "W" questions ("who, what, when, where, why") and "how" when they investigate events for news articles. The way to find out information about news is to interview. If students are uncomfortable about their own family origin because of immigration issues, encourage them to interview, with a parent's help, a neighbor or friend. The basic questions are:

- Who? (the person or family)
- What? (the migration)
- When? (the approximate date of the trip)
- Where? (the origin and destination: important for the map)

- Why? (Migration reasons and decisions can be thought of as "push factors," why they left their place of origin, and "pull factors," why they chose their destination.)
- How? (Did they come by ship? train? fly? walk? drive? get a ride by car or bus?)

Students use the information from their interview to write a simple paragraph to answer the 5 W's. When students have completed their paragraphs, have each present it to the class as an oral speaking exercise. While the others listen, the other students can first make lists of the countries mentioned and then make a grouping by continents (copying the spelling off the board or from the atlases on their desks).

As students locate the areas of the world from which their ancestors came, help them to identify the kinds of things that would be different in those areas: food, clothing, climate, language, religion. Discuss what happens when people from different cultures move to another country. Ask,"What problems might newcomers to our country have when they first arrive? (Speaking the language, finding foods they enjoy, getting used to the weather, if it is different) Ask students to make a list of the things we can do to help people who have just moved here from other countries. (We can help them feel welcome, find their way, and learn about our way of life, and we can express an interest in theirs.)

World Flow Map: Tack a world wall map to a class bulletin board where all students can see. As each student makes his or her presentation, help him/her locate the country, and have the student place a colored push pin at the location of his or her ancestors' origin, attach it to colored yarn (or string), and pull it to California (the specific community of the school). Put a title over this map such as "Our Ancestors' World Migration Flow Map." A separate legend can be made to the side showing the push pins as symbols of the ancestors' origins, and the yarn strings as their migrations.

Optional: Have each student copy the map on a desk-sized blank world outline map. If a country name cannot neatly be printed within its boundaries, a neat line can connect it with the name printed neatly in the ocean nearby. Have the students write in small letters if they can. They can complete this individual map with the map elements they have learned: title, legend, scale if available, directional indicator, date, and the individual "cartographer's" name.

Assessment

Assessment of this lesson is included in each section: finding relative locations on the school neighborhood map with letter-number coordinates, the California Land Use Map, constructing the two maps of North American Physical Features and North American Countries, and a desk-size World Flow Map of Ancestors' Migrations. The focus questions provide a framework for evaluating the lesson.

It is recommended that student work be assembled into a portfolio. Student products should provide evidence of attainment of the following identified outcomes:

- Use letter-number grid indicators to describe absolute locations of specific places in the classroom and the neighborhood, such as the school, park, and fast food facility.

- Write the absolute location of the street address of the school, locate it by street name on the map.
- Write their home addresses (locate on map if included on the school neighborhood map).
- Distinguish between urban, suburban, and rural environments in California
- Locate and label major physical features on a North American continent map, including major water bodies, rivers, mountain ranges, and other major features (listed previously in this lesson).
- Locate and label the countries on a North American continent map.
- Write a paragraph summarizing an interview about the student's ancestors' migration to California, answering the newspaper journalist's questions, who, what, where, when, why, and how.
- Orally present the migration interview facts to the class.
- Contribute to the class group project of the world flow wall map of "Our Ancestors' Migrations to California."
- On all maps constructed, include the map elements of title, legend with symbols, directional indicator, scale (if possible), and date.

Extended and Correlated Activities

- *Map Champ Atlas* has many other sections that are good for expanding students' geographic horizons and knowledge of maps, and extensions with earth science, life science, and economics (how people make a living). It can be used as a fun (and serious) geography textbook throughout the year.
- Mental maps include our ideas of where places are and how to get there. They are images we store in our minds. Have each student draw a mental map of the route he or she takes to get to school. After drawing a mental map, students can highlight the actual path traveled on a neighborhood or community map.
- Ask students what are other types of maps they would like to make: flow maps showing the pathways from their houses to the park, or to their friends' houses, where they would like to travel on a vacation, etc.
- Use removable stickers to mark on a map places in the United States, North America, or the world that students have traveled to on vacation, or when visiting family.
- As a class activity, construct a large physical map of North America as a backdrop for a skit in which members of the class assume roles of migrants to California and discuss the physical features they witnessed during their migration.
- Teach or review the Five Themes of Geography and how these are illustrated on the maps.
- Geographic themes and topics occur throughout children's books. While reading stories, locate themes of town and country, how people make a living and thus use the land, traveling, moving, neighborhoods: all of these can echo the topics of this unit.

- A Map of My Home - Give students blank paper and ask them to draw a map of their home, showing the location and layout of the kitchen.
- Use sugar cookie dough to create the California Land Use Map. Use different candy, sprinkles, etc. to locate the farming, forestry, desert, and other land use areas. Bake and enjoy!
- Sign up for a pen pal from another country on National Geographic's Web site, www.nationalgeographic.com. Write a letter to your new pen pal and try to map out the route the letter may take after it is mailed from your local post office.
- Make a treasure map of the school yard or the neighborhood, using common symbols like trees, roads or railroad tracks. Include a key so treasure hunters can follow the map. Write directions, using the symbols, to the treasure.

References and Resources for Sample Topic:

Geography Education Standards Project. 1994. *Geography for Life, National Geography Standards.* Washington, D.C. National Geographic Research and Exploration, on behalf of the American Geographical Society, Association of American Geographers, National Council for Geographic Education, and the National Geographic Society. This is a very good document describing the national standards in both physical and cultural geography, with many good visuals.

Greenwood, Barbara. *The Kids Book of Canada.* 1998. Buffalo, NY: Kids Can Press. An introduction to the land and people, organized by province, with good illustrations.

Helping Your Child Learn Geography. 1996. U.S. Department of Education Office of Educational Research and Improvement. This is an excellent summary of the five themes and has activities for children from 5 to 10 years of age. The color booklet is available for 50¢ from the *Consumer Information Catalog,* and it is free on the Internet at http://www.ed.gov/pubs/parents/Geography/4word.html (no final period).

National Council for Geographic Education web site has a section called "Geography Resources for Teachers" with many helpful links. Outline maps are available. http://www.ncge.org/resources/index.html

National Geographic Beginner's World Atlas. 1999. Washington, D.C.:National Geographic Books. ISBN 0-7922-7502-0. The *Beginner's World Atlas* features a large-format, easy-to-read physical and political maps of the world with more than 100 photographs carefully selected for their appeal to young children. The images and age-appropriate, fact-filled text make people, places, and natural wonders come to life. The sections on The Land and The People of North America are particularly appropriate for this unit.

****The Nystrom Map Champ Atlas.** 1997. Chicago: Nystrom. This is the best single reference for this lesson, because the opening part details geographic concepts and themes, and gives a number of map types and examples.

Grade 2, Standard 2

*Peterson, David. *North America, A True Book*. 1998. New York: Children's Press. This is a small book with large-size type, although the reading may be above grade-level. It is an introduction to the maps, climates and landscapes, animals and people, and the photographs are very good. ISBN#: 0-516-26437.

1 2 3 4 5 6 7
A
B
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E
F
A
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C
D
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F
1 2 3 4 5 6 7

Appendix 2

Vocabulary Cards for Land Use

environment
urban
suburban
rural
California

Appendix 3

North American Map
Recommended List of Items to Label

Pacific Ocean	**Atlantic Ocean**	**Arctic Ocean**
Hudson Bay	**Gulf of Mexico**	**Caribbean Sea**
Sierra Nevada Mountains	**St. Lawrence River**	**Mississippi River**
Missouri River	**Ohio River**	**Lake Superior**
Lake Michigan	**Lake Huron**	**Lake Erie**
Lake Ontario	**Colorado River**	**Sierra Madre**
Appalachian Mountains	**Rocky Mountains**	**Caribbean Islands**
Greenland	**Cuba**	**Panama**
Canada	**Alaska**	**Florida**
Baja California	**Great Plains**	**United States**
Mexico	**Guatemala**	**Belize**
El Salvador	**Honduras**	**Nicaragua**
Costa Rica	**Panama**	